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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,964	08/06/2001	Paul M. Neugebauer	1110-WO P99125US1A	1450

26562 7590 11/04/2003

BRIDGESTONE AMERICAS HOLDINGS, INC.  
1200 FIRESTONE PARKWAY  
AKRON, OH 44317

EXAMINER
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MAKI, STEVEN D

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 11/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/922,964

Applicant(s)

NEUGEBAUER ET AL.

Examiner

Steven D. Maki

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 19-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

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1) The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: incorporation of the description in claim 19 relating to "symmetrical" into the specification.

2) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Japan '314

4) **Claims 19-23, 26-29 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan '314 (JP 11-240314).**

For a description of Japan '314's disclosure in English, see machine translation of Japan '314. Also see Europe '445 (EP 1072445), which is an English language equivalent to Japan '314. Japan '314 is applied instead of Europe '445 since Japan '314 is available as prior art under 35 USC 102(b) whereas Europe '445 is not.

Japan '314' discloses a pneumatic tire having five rows of **symmetrical blocks**. Sipes are provided in each of the blocks. The sipe is twisted such that one side is

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slanted in a first direction with respect to the radial plane and the other side is slanted in the opposite direction. The sipes permit the blocks to rotate so that residual self aligning torque can be reduced. With respect to the first angle being 2-15 degrees, Japan '314 teaches twisting the sipe so as to define an angle  $\theta$  12 of for example 28.1 degrees (see figure 4). The sipe at each end of the block therefore is slanted in opposite directions at the same angle of 14.1 degrees (falling within the claimed range of 2-15 degrees).

As to claim 19, the claimed tire is anticipated by Japan '314's tire. The claimed sipes read on the twisted sipes of Japan '314. Claim 19 fails to exclude a sipe, which is slanted at more than one angle (angle varying for example from 14.1 degrees to 0 degrees and then back to 14.1 degrees).

As to the dependent claims: As to claim 20 (7 degrees), note that the slant of the sipe varies from 14.1 to 0 degrees. As to claim 21, an example sipe depth of 8 mm / 10 mm (80%) is described. As to claims 23, note the orientation of the sipes shown in figure 3. Claim 22 (substantially perpendicular) does not appear to require a sipe orientation different from that shown in figure 3. As to claim 26, the sipes may be zigzag (figure 7). As to claims 27 and 28, note the use of five block rows. As to claim 29, Japan '314 teaches that the sipe may be a closed sipe. See for example figure 12 embodiment. Also, partially across does not appear to exclude a both end opening sipe (a sipe which extending entirely across a block also must extend partially across the block). As to claim 31, plural sipes are formed in each block.

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5) **Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '314 (JP 11-240314).**

As to claims 24 and 25, it would have been obvious to provide Japan '314's sipes with the claimed width since (a) Japan '314 teaches that the sipes close in the ground contact patch - the sipes therefore being very narrow due to the walls being able to abut and optionally (b) it is taken as well known / conventional per se in the tire tread art to provide sipes with a width of 0-2 mm.

6) **Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '314 (JP 11-240314) as applied above and further in view of Moseley (US 5669993) or van der Meer et al (US 5538060).**

As to claim 30, it would have been obvious to provide lateral grooves of Japan '314 with the claimed generally V-shaped configuration in view of either Moseley's teaching to provide blocks, which like those of Japan '314 rotate to reduce SAT, with v-shaped edges which one of ordinary skill in the art would readily understand are defined by V-shaped grooves or van der Meer et al's suggestion to use v shaped grooves between shoulder blocks in order to improve traction for off road use.

Japan '715

7) **Claims 19, 21-25, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '715 (JP 10-138715) in view of Japan '314 (JP 11-240314).**

Japan '715 discloses a tire having a tread including two block rows comprising **symmetrical blocks** having sipes. The sipes clearly extend only partially across the block. In figure 3, two of the sipes are perpendicular to the circumferential direction.

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The sipes are inclined with respect to the radial direction and are arranged about the block such that when the block is compressed a torque is created which reduces residual aligning torque caused by lateral force resulting from internal structure of the tire. Since each block has two sipes inclined in equal and opposite directions, each block of one block row has as sipe, which is inclined equal and opposite to a sipe in a block of the other block row. Japan '715 does not recite that the angle at which the sipes are inclined with respect to the radial direction is 2-15 degrees. However, it would have been obvious to one of ordinary skill in the art to incline the sipes of Japan '715 at an angle between 2 and 15 degrees with respect to the radial plane as set forth in claim 19 since (1) Japan '715 teaches inclining the sipes such that the block can rotate when compressed and thereby generate a torque to offset SAT and (2) Japan '314 teaches that a block having sipes may rotate so as to generate a torque for reducing SAT when the sipes are inclined at a maximum angle of 14.5 degrees with respect to the radial plane. Hence, one of ordinary skill in the art would readily appreciate from a consideration of Japan '715 and Japan '314 as a whole that an angle of 2-15 degrees with respect to the radial direction can and should be used for Japan '715's sipes to obtain the desired result of generating a torque for reducing RSAT.

As to the dependent claims: As to claim 21, note the sipe depth shown in figure 3. As to claims 22-23, note the angle with respect to the circumferential direction shown by either figure 2 or 3. In any event: As to claim 21, it would have been obvious to one of ordinary skill in the art to incline Japan '715's sipes substantially perpendicular to the mid-circumferential plane of the tire since (1) Japan '715 teaches orienting two of the

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sipes parallel to the lateral grooves separating the blocks and (2) it is well known to use lateral grooves oriented at 90 degrees with respect to the tire EQ as evidenced for example by Japan '314. The sipe width in claims 24 and 25 would have been obvious in view of Japan '715's teaching to use sipes having a width less than 1.5 mm. As to claim 28, Japan '715 teaches placing the sipes in intermediate blocks. As to claim 29, Japan '715 clearly shows the sipes extending only partially across the block.

#### Remarks

8) Applicant's arguments with respect to claims 19-31 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 8-13-03 have been fully considered but they are not persuasive.

The prior art rejections using Japan '706 set forth in the last office action have been withdrawn in view of new claim 19.

As to applicant's arguments regarding symmetrical blocks, note the new ground of rejection using newly cited prior art (Japan '314 / Japan '715) showing symmetrical blocks.

9) No claim is allowed.

10) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



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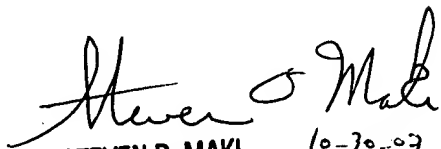
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is 703-308-2068. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-3853. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Steven D. Maki  
October 30, 2003

  
**STEVEN D. MAKI**  
**PRIMARY EXAMINER**  
**GROUP 1300**  
Av 1733  
10-30-03